

REMARKS

Claims 1-14 are now pending in the application. Claims 1-12 are amended and new claims 13 and 14 are added herein. Support for these amendments and new claims can be found throughout the specification, claims and drawings as originally filed. No new matter is added. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

SPECIFICATION

The specification stands objected to for certain informal matters. Applicant amends the specification to address the Examiner's concerns. Additional idiosyncrasies identified by the Applicant are also amended. Therefore, reconsideration and withdrawal of this objection are respectfully requested.

REJECTION UNDER 35 U.S.C. § 112

Claims 1-12 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. This rejection is respectfully traversed. Notwithstanding and solely in the interest of expediting prosecution, Applicant amends claims 1-12 to address the Examiner's concerns. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Since the changes to the claims are so extensive, Applicant presents the claims hereinafter in clean form. Hopefully, this will make the changes easier to examine.

1. (currently amended) A solar radiation shielding apparatus including an obstacle detection stopping device for stopping an extension of a solar radiation shielding member after an obstacle contacts said solar radiation shielding member, the apparatus comprising:

a rotatable winding pulley;

a lifting cord supported by said winding pulley;

said solar radiation shielding member supported by said lifting cord;

a rotatable driving shaft selectively rotatably driving said winding pulley in a rolling-up direction of the lifting cord to retract said solar radiation shielding member, said winding pulley being rotatable in an unwinding direction of the lifting cord by a tension exerted on said lifting cord to extend said solar radiation shielding member; and;

said obstacle detection stopping device which includes:

an obstacle detector frictionally engaging said winding pulley and adapted to stop rotation of said winding pulley after the tension exerted on said lifting cord is interrupted; and

a stop operably engageable with said driving shaft and adapted to stop rotation of said driving shaft in response to rotation of said driving shaft relative to said winding pulley which is stopped by said obstacle detector.

2. (currently amended) The apparatus according to claim 1, wherein said obstacle detector further comprises a friction generator disposed between said winding pulley and a supporting member rotatably supporting said winding pulley.

3. (currently amended) The apparatus according to claim 1, wherein said stop includes a cam mechanism coupled to said driving shaft, said cam mechanism moving said stop into and out of engagement with a supporting member rotatably supporting said winding pulley according to rotation of said driving shaft relative to said winding pulley.

4. (currently amended) The apparatus according to claim 1,
wherein said stop further comprises:

a first member mounted along said driving shaft so as to be axially movable but nonrotatable relative to said winding pulley, said first member having a sliding hole that is inclined with respect to said winding pulley;

a second member mounted along said driving shaft so as to be rotatable within a predetermined range and axially movable relative to said first member, said second member including a sliding projected part that is slideable inside said sliding hole but nonmovable relative to said winding pulley; and

a third member mounted along said driving shaft and engageable with said first member to stop rotation of said first member,

wherein said first member moves axially along said driving shaft in response to rotation relative to said second member and stops the rotation by engaging said third member; and

said second member includes a controlling projected part that selectively engages an engaging projected part of said winding pulley to stop rotation of said driving shaft.

5. (currently amended) The apparatus according to claim 4, wherein said first member includes a plurality of braking claws evenly disposed along a circumferential direction of said first member, the plurality of braking claws being selectively engageable with said third member.

6. (currently amended) The apparatus according to claim 1, wherein said stop is provided at only two locations along said driving shaft.

7. (currently amended) The apparatus according to claim 2,
wherein said stop further comprises:

a first member mounted along said driving shaft so as to be axially movable but nonrotatable relative to said winding pulley, said first member having a sliding hole that is inclined with respect to said winding pulley;

a second member mounted along said driving shaft so as to be rotatable within a predetermined range and axially movable relative to said first member, said second member including a sliding projected part that is slideable inside said sliding hole but nonmovable relative to said winding pulley; and

a third member mounted along said driving shaft and engageable with said first member to stop rotation of said first member,

wherein said first member moves axially along said driving shaft in response to rotation relative to said second member and stops the rotation by engaging said third member; and

said second member includes a controlling projected part that selectively engages an engaging projected part of said winding pulley to stop rotation of said driving shaft.

8. (currently amended) The apparatus according to claim 3,
wherein said stop further comprises:

a first member mounted along said driving shaft so as to be axially movable but nonrotatable relative to said winding pulley, said first member having a sliding hole inclined with respect to said winding pulley;

a second member mounted along said driving shaft so as to be rotatable within a predetermined range and axially movable relative to said first member, said second member including a sliding projected part that is slideable inside said sliding hole but nonmovable relative to said winding pulley; and

a third member mounted along said driving shaft and engageable with said first member to stop rotation of said first member,

wherein said first member moves axially along said driving shaft in response to rotation relative to said second member and stops the rotation by engaging said third member; and

said second member includes a controlling projected part that selectively engages an engaging projected part of said winding pulley to stop rotation of said driving shaft.

9. (currently amended) The apparatus according to claim 7, wherein said first

member includes a plurality of braking claws evenly disposed along a circumferential direction of said first member, the plurality of braking claws being selectively engageable with said third member.

10. (currently amended) The apparatus according to claim 8, wherein said first member includes a plurality of braking claws evenly disposed along a circumferential direction of said first member, the plurality of braking claws being selectively engageable with said third member.

11. (currently amended) The apparatus according to claim 2, wherein said stop is provided at only two locations along said driving shaft.

12. (currently amended) The apparatus according to claim 3, wherein said stop is provided at only two locations along said driving shaft.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: September 23, 2008

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